
U.S. Department of the Interior • U.S. Geological Survey

MINERAL INDUSTRY SURVEYS

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The cobalt catalog is document 210100, this report is document 210005

COBALT IN MAY 1996

U.S. consumption of cobalt in January through May 1996 was 3% higher than consumption in during the first 5 months of 1995, according to the U.S. Geological Survey (USGS). U.S. imports of cobalt metal and cobalt contained in chemicals during **January through April 1996** were basically the same as imports during the first 4 months of 1995. Exports of unwrought cobalt and cobalt contained in chemicals were 67% higher in January through April 1996 than during the same period in 1995. Trade data for May will be available in a subsequent issue.

Note.--With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated using unrounded data.

New Publications.--*Minerals Yearbook 1994 Vol. I: Metals and Minerals* is now available from the Government Printing Office (GPO). This 946-page volume contains chapters on approximately 90 commodities, mining and quarrying trends, statistical surveying methods, a statistical summary, and a history of the U.S. Bureau of Mines. The price is \$53.00 and the GPO stock number is #024-004-02432-1. Also available: *Minerals Yearbook 1993-94 Vol. II, Area Reports, Domestic*. This volume on the U.S. mineral industry covers salient statistics including production and consumption for each State. It is available in both soft cover and hard cover editions. The price for the soft cover edition is \$17.00 (GPO stock number #024-004-02424-1). The price for the hard cover edition is \$30.00 (GPO stock number #024-004-02433-0). Also available: *Minerals Yearbook 1994 Vol. III, International Review*. This 1,038-page volume covers mineral production and trade in more than 175 foreign countries. The price is \$58.00 and the GPO stock number is #024-004-02434-8. MasterCard and Visa orders can be faxed directly to the GPO order desk at (202) 512-2250. To order by phone, call (202) 512-1800. Checks payable to the Superintendent of Documents should be mailed to: Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.

Price update, dollars per pound of electrolytic cobalt (Source--Platt's Metals Week):

<u>Week ending</u>	<u>Price range</u>
July 12	23.00-24.00
July 19	21.00-22.00
July 26	20.00-21.00

Prepared in the Metals Section and the Data Collection and Coordination Section, August 5, 1996.

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TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

Period	Metal 2/	Oxide and other chemical compounds 3/	Scrap	Total
1995:				
May	244	152	125	521
June	276	160	119	555
July	277	119	118	514
August	278	144	120	541
September	264	144	123	531
October	279	144	117	540
November	282	119	121	522
December	250	137	125	512
January-May r/	1,300	721	624	2,640
January-December 4/	3,200	1,690	1,470	6,360
Year 5/	3,650	1,810	1,470	6,920
1996:				
January	291	145	122	558
February	265	148	121	534
March	279	129	120	528
April	268	129	123	520
May	295	164	126	585
January-May	1,400	715	611	2,720

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes metal powder.

3/ Data may include other cobalt materials.

4/ Data based on monthly reports.

5/ Includes annual reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE 1/

(Metric tons, contained cobalt)

End Use	1995			1996	
	January- May	January- December 3/	Year 2/	May	January- May
Steel:					
Stainless and heat resisting	16 r/	38	38	3	16
Tool	W	W	146	W	W
Superalloys	1,070 r/	2,580	2,870	215	1,120
Alloys (excludes steels and superalloys):					
Magnetic alloys	278 r/	698	755	61	285
Welding materials (structural and hard-facing) 3/	112	267	269	22	116
Other alloys 4/	24 r/	59	80	4	23
Cemented carbides 5/	314 r/	746	752	61	317
Chemical and ceramic uses:					
Catalysts	295 r/	713	732	53	286
Driers in paints or related usage	338 r/	770	770	56	295
Ground coat frit	75	174	174	21	83
Pigments	W	W	168	36	W
Miscellaneous and unspecified 6/	120 r/	311	168	53	184
	2,640 r/	6,360	6,920	585	2,720

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Miscellaneous and unspecified."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes annual reports.

3/ Data based on monthly reports.

4/ Includes wear-resistant alloys.

5/ Includes nonferrous alloys.

6/ Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

7/ Includes feed or nutritive additive, full-alloy steel, glass decolorizer, mill products made from metal powder, and data indicated by the symbol "W."

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS 1/ 2/

(Metric tons, contained cobalt)

	Industry 2/				U. S. Government 3/
	Metal 4/	Oxide and other chemical compounds 5/	Scrap	Total	Metal
1995:					
May	291	309	94	694	21,700
June	260	304	97	661	21,700
July	249	320	96	665	21,600
August	227	316	101	645	21,600
September	257	295	96	648	21,200
October	269	292	101	662	21,000
November	249	317	103	669	20,800
December 6/	323	283	103	709	20,700
Yearend 7/	391	309	103	803	20,700
1996:					
January	309	490	112	911	20,700
February	275	470	108	853	20,700
March	274	871	104	1,250	20,400
April	277	869	99	1,240	20,100
May	257	835	99	1,190	19,800

r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Stocks reported by cobalt processors and consumers.

3/ Data from Defense Logistics Agency, National Defense Stockpile Center. Includes material committed for sale pending shipment.

4/ Includes metal powder.

5/ Data may include other cobalt materials.

6/ Data based on monthly reports.

7/ Includes annual reports.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Metals 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1995:								
April	595,000	32,800,000	79,100	3,700,000	157,000	1,920,000	695,000	2,290,000
May	421,000	24,000,000	72,900	3,050,000	90,900	1,060,000	499,000	2,790,000
June	518,000	28,300,000	66,100	2,910,000	119,000	1,500,000	598,000	3,390,000
July	427,000	26,500,000	58,300	2,720,000	85,600	1,140,000	492,000	3,880,000
August	615,000	36,900,000	73,800	2,870,000	201,000	2,730,000	723,000	4,610,000
September	399,000	24,400,000	65,200	3,070,000	163,000	2,330,000	493,000	5,100,000
October	531,000	31,700,000	29,700	1,310,000	110,000	1,420,000	583,000	5,680,000
November	259,000	16,200,000	58,900	2,780,000	98,800	1,350,000	328,000	6,010,000
December	411,000	25,900,000	16,300	722,000	16,000	189,000	427,000	6,440,000
January-December	5,530,000	325,000,000	808,000	34,300,000	1,170,000	15,800,000	6,440,000	XX
1996:								
January	514,000 6/	30,000,000 6/	53,000 6/	2,060,000 6/	276,000 6/	3,480,000 6/	627,000	627,000
February	470,000	29,900,000	57,100	2,810,000	25,600 6/	314,000 6/	519,000	1,150,000
March	538,000	35,800,000	49,800 6/	2,450,000 6/	183,000 6/	2,300,000 6/	625,000	1,770,000
April:								
Australia	--	--	--	--	--	--	--	2,280
Austria	--	--	--	--	--	--	--	240
Belgium	18,800	1,390,000	5,000	257,000	--	--	22,400	85,600
Brazil	10,600	608,000	--	--	--	--	10,600	10,600
Canada	94,700	5,870,000	16,800	813,000	272	7,940	107,000	322,000
China	--	--	--	--	--	--	--	1,250
Finland	118,000	7,860,000	109,000	4,550,000	104,000	1,340,000	225,000	594,000
France	1,970	237,000	2,760	244,000	--	--	3,960	13,700
Germany	10,500	869,000	201	19,100	--	--	10,600	50,500
Hong Kong	--	--	--	--	--	--	--	500
Japan	--	--	957	30,100	--	--	689	4,640
Netherlands	--	--	--	--	--	--	--	5,270
Norway	64,400	4,120,000	--	--	--	--	64,400	487,000
Russia	45,200	2,650,000	2,560	42,800	--	--	47,100	297,000
South Africa	--	--	--	--	--	--	--	9,000
Spain	--	--	778	23,400	--	--	560	12,300
Switzerland	--	--	--	--	--	--	--	960
United Kingdom	457	33,200	8,400	393,000	--	--	6,510	24,600
Zaire	20,100	1,050,000	--	--	--	--	20,100	151,000
Zambia	47,300	2,800,000	--	--	--	--	47,300	264,000
Total	432,000	27,500,000	147,000	6,370,000	104,000	1,340,000	566,000	2,340,000

r/ Revised. XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder.

3/ Includes cobalt sulfates, cobalt chlorides, cobalt carbonates, and cobalt acetates.

4/ Customs value.

5/ Estimated from gross weights.

6/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Other cobalt: matte, waste and scrap 2/		Wrought cobalt and cobalt articles	
	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
1995:						
May	7,460	\$381,000	113,000	\$1,060,000	8,450	\$614,000
June	12,700	760,000	26,800	406,000	17,800	730,000
July	8,340	408,000	106,000	1,390,000	22,700	1,410,000
August	5,680	326,000	160,000	2,290,000	5,670	634,000
September	8,380	242,000	60,200	1,080,000	7,710	516,000
October	10,400	684,000	78,100	1,050,000	15,400	813,000
November	4,020	268,000	33,500	444,000	11,800	901,000
December	6,440	566,000	33,400	631,000	21,200	1,360,000
January-December	98,200	5,330,000	880,000	12,400,000	155,000	9,760,000
1996:						
January	4,870	394,000	32,300 4/	569,000 4/	10,200	508,000
February	6,560	490,000	90,900 4/	833,000 4/	16,000	651,000
March	1,340	107,000	72,500 4/	1,510,000 4/	21,800	1,410,000
April:						
Belgium	250	17,000	--	--	459	32,300
Canada	1,640	33,200	438	8,890	465	66,600
France	460	34,900	526 4/	50,700 4/	17	1,950
Germany	340	39,600	10,500	230,000	91	3,190
Japan	680	57,200	9,040	168,000	4,280	294,000
Russia	--	--	480 4/	22,800 4/	--	--
South Africa	--	--	500 4/	34,000 4/	--	--
Sweden	567	31,000	--	--	--	--
United Kingdom	--	--	28,100 4/	497,000 4/	13,600	849,000
Total	3,940	213,000	49,500	1,010,000	18,900	1,250,000

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes other intermediate products of cobalt metallurgy; may include other cobalt-bearing materials from which cobalt is extracted, or from which cobalt-containing chemical compounds are manufactured.

3/ Customs value.

4/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS 1/

(Kilograms, gross weight of material, except as noted)

	Unwrought cobalt, powders, matte, waste and scrap 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1995:								
April	66,000	\$4,210,000	14,700	\$514,000	105,000	\$433,000	102,000	431,000
May	76,800	5,230,000	22,700	739,000	47,500	666,000	105,000	536,000
June	60,500	2,470,000	66,000	2,140,000	21,600	381,000	113,000	649,000
July	55,700	2,570,000	19,900	870,000	31,800	523,000	77,700	727,000
August	72,500	4,900,000	11,600	517,000	32,900	447,000	88,800	815,000
September	151,000	8,590,000	28,900	1,020,000	60,500	931,000	186,000	1,000,000
October	92,900	6,090,000	28,200	511,000	12,400	217,000	116,000	1,120,000
November	72,300	3,260,000	11,200	248,000	25,700	416,000	86,600	1,200,000
December	71,400	4,690,000	18,600	724,000	43,200	772,000	95,300	1,300,000
January-December	898,000	49,000,000	271,000	8,850,000	860,000	7,080,000	1,300,000	XX
1996:								
January	70,200	5,050,000	31,300	889,000	34,500	788,000	101,000	101,000
February	76,700	4,750,000	20,200	642,000	42,000	510,000	101,000	202,000
March	214,000	13,000,000	29,100	1,070,000	336,000	318,000	316,000	518,000
April	168,000	9,640,000	24,300 6/	497,000 6/	73,100 6/	191,000 6/	203,000	721,000

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ May include other intermediate products of cobalt metallurgy, and unwrought cobalt alloys.

3/ Cobalt acetates and cobalt chlorides.

4/ Free alongside ship (f.a.s.) value.

5/ Estimated from gross weights.

6/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value 2/	Quantity	Value 2/
1995:				
April	29,400	\$1,310,000	--	--
May	36,100	1,420,000	10,500	\$267,000
June	47,500	2,010,000	--	--
July	27,600	1,080,000	--	--
August	75,400	2,060,000	--	--
September	95,900	2,060,000	21,200	32,700
October	41,400	1,220,000	20,000	59,000
November	40,500	1,930,000	50,800	565,000
December	9,070	682,000	1,710	2,700
January-December	485,000	17,800,000	139,000	1,610,000
1996:				
January	38,800	1,640,000	8,050 3/	105,000 3/
February	18,300	1,630,000	5,560 3/	337,000 3/
March	24,100	2,060,000	10,900 3/	130,000 3/
April	25,400	1,890,000	21,700 3/	1,020,000 3/

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Free alongside ship (f.a.s.) value.

3/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.